THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 16

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte GUY CARTIER

Appeal No. 95-5051
Application 08/035,652[1]

ON BRIEF

Before MEISTER, ABRAMS and McQUADE, **Administrative Patent Judges.**

MEISTER, **Administrative Patent Judge.**

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1-

[1] Application for patent filed March 23, 1993.

6, 9-13 and 16-20. Claims 7, 8, 14 and 15, the only other claims present in the application, have been indicated as being allowable subject to the requirement that they be rewritten to include all the subject matter of the claims from which they depend. We reverse.

The appellant's invention pertains to a forklift truck having a drive wheel and a plurality of horizontally spaced support wheels that are mounted for independent vertical adjustment. Independent claim 1 is further illustrative of the appealed subject matter and reads as follows:

1. A forklift truck having a drive wheel and a plurality of horizontally spaced and vertically adjustable support wheels, spring loaded means for independently vertically positioning each of said plurality of support wheels.

The references of record relied on by the Examiner are:

Overmyer	1,161,007	Nov. 16, 1915
Tideman	1,482,953	Feb. 5, 1924
Jarl et al (Jarl)	4,750,579	Jun. 14, 1988
British Patent	846,586	Aug. 31, 1960
Swiss Patent[2]	557,525	Nov. 30, 1961

Claim 1 stands rejected under 35 U.S.C. § 103 as being unpatentable over Jarl in view of Tideman or the Swiss patent.

Claims 2-6, 9-13 and 16-20 stand rejected under 35 U.S.C. § 103 as being unpatentable over Jarl in view of Tideman

[2] Translation attached.

or the Swiss patent as applied to claim 1 and further in view of the British patent or Overmyer.

Each of these rejections is bottomed on the examiner's view that

> Jarl et al. disclose a lift truck 1 with drive wheel 7 and spaced support wheels 6, but do not disclose independently vertically adjustable support wheels which is disclosed by Tideman (22, 16, 20, 8 etc.) or the Swiss patent (E, N, K, etc.) and in view of same, it would have been obvious to have vertically adjusted the wheels in order that wheels conform to a support surface as taught by either secondary reference. (see answer, page 3)

In support of this position the answer also states that

> the Swiss patent has vertical adjustability since in traversing an uneven surface, the wheels move vertically. Appellant in at least claim 1 has not claimed that the wheels are preadjusted . . . prior to any vehicle movement. (see pages 4 and 5)

We will not support the examiner's position. In rejecting claims under 35 U.S.C. 103 the examiner bears the initial burden of presenting a ***prima facie*** case of obviousness. ***In re Rijckaert***, 9 F.3d 1531, 28 USPQ2d 1955 (Fed. Cir. 1993); ***In re Oetiker***, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). Only if that burden is met does the burden of coming forward with evidence or argument shift to the applicant. ***Id***. If the examiner fails to establish a ***prima facie*** case, the rejection is improper and will be overturned. ***In re Fine***, 837 F.2d 1071, 5

USPQ2d 1596 (Fed. Cir. 1988). Here, we do not find that the examiner has satisfied his initial burden of presenting a ***prima facie*** case of obviousness.

Considering first the examiner's proposed combination of Jarl and Tideman, Jarl discloses a forklift truck having a biased drive wheel 7 and a plurality of horizontally spaced support wheels, which support wheels are stated to be "substantially without any form of spring suspension whatsoever" (see column 2, lines 27, 28). There is no teaching in Jarl of providing a "spring loaded means for independently vertically positioning" each of the support wheels as expressly required by independent claim 1. Recognizing this deficiency, the examiner purposes to mount the support wheels 5, 6 of Jarl for independent vertical adjustment in view of the teachings of Tideman. Tideman, however, is directed to an entirely different type of device, namely, a vacuum cleaner. While Tideman does show support wheels that are vertically adjustable, they are vertically adjustable for the purpose of varying the position of a vacuum nozzle with respect to the floor or carpet (see page 1, lines 63-67). Absent the appellant's own teachings, we are at a loss to understand why one of ordinary skill in this art would have been motivated to combine the disparate teachings of Jarl and Tideman in the manner proposed by the examiner. The examiner may not pick and chose from any one reference only so much of it

as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art (***see In re Kamm***, 452 F.2d 1052, 172 USPQ 298 (CCPA 1972)) and obviousness cannot be established by locating references which describe various aspects of appellants' invention without also providing evidence of the motivating force which would impel one skilled in the art to do what the appellants have done (***see Ex parte Levengood***, 28 USPQ2d 1300, (BPAI 1993)). With respect to the combined teachings of Jarl and Tideman, we find no persuasive evidence of such a motivating force.

Turning to the examiner's proposed combination of Jarl and the Swiss patent, the Swiss patent discloses a resiliently-mounted support wheel for a "rolling device." Even if the references were combined in the manner proposed by the examiner the claimed invention would not result inasmuch as there is no disclosure in the Swiss patent of a the support wheel that is vertically adjustable in the manner claimed. In fact, the resulting structure would appear to be essentially that which the appellant has admitted to be old on page 1 of the specification, i.e., that (1) it is known to provide support wheels "at a distance from the drive wheel" and (2) "[t]hese wheels are generally spring mounted or suspended with a predetermined clearance above the road surface." The examiner nevertheless

contends that the resilient mounting of the Swiss patent provides for "vertical adjustability" because "in traversing an uneven surface, the wheels move vertically." We must point out, however, that independent claim 1 expressly requires "spring loaded means for independently vertically positioning each of said plurality of support wheels" and thus is drafted in a means-plus-function format. Accordingly, the scope of this limitation is governed by 35 U.S.C. 112, sixth paragraph. With respect to this paragraph, our reviewing court in ***In re Donaldson***, 16 F.3d 1189, 1195, 29 USPQ2d 1845, 1850 (Fed. Cir. 1994) gave the following guidance:

> For the foregoing reasons, the PTO was required by statute to look to [the] specification and construe the "means" language recited in the last segment of claim 1 as limited to the corresponding structure disclosed in the specification and equivalents thereof.

See also, Valmont Indus. Inc. v. Reinke Mfg. Co. Inc., 983 F.2d 1039, 1042, 25 USPQ2d 1451, 1454 (Fed. Cir.) (Paragraph 6 of Section 112 "limits the applicant to the structure, material, or acts in the specification and their equivalents").

Reviewing the appellant's specification, it is stated therein that

> each support wheel is rotatably mounted on the lower end of a cylindrical pivot member located in a coaxial cylindrical pivot sleeve which is connected to the drive section of a forklift truck so that the wheel can be moved

> vertically relative to the road surface and locked in at least two different vertical positions. The cylindrical pivot sleeve has several recesses of different vertical depths located around its lower edge which are adapted to be engaged by a pin connected to the cylindrical pivot member. Matching pairs of recesses of equal depths are provided on diametrically opposed portions of the edge of the cylindrical pivot sleeve so that the line connecting two recesses intersects the center axis of the cylindrical pivot sleeve. The cylindrical pivot member has a radial hole extending through a hole located at its lower end and a pin is located in the hole with an end projecting out of each end. The ends of the pin are adapted to be located in a matching pair of opposed recesses to vertically position the cylindrical pivot member in the cylindrical pivot sleeve. (see specification, pages 1 and 2)

The specification also discloses that the cylindrical pivot member is biased in the upward direction by a spring in such a manner that the pin engages the recesses.

Thus, in accordance with the decisions in ***Donaldson*** and ***Valmont***, the "means" clause is limited to this structure and equivalent structures. A structure is an "equivalent" if it differs from the disclosed structure by an insubstantial change which adds nothing of significance. ***Valmont***, 983 F.2d at 1042, 25 USPQ2d at 1455. While the appellant's specification states that "the particular arrangement is illustrative only and is not limiting as to the scope of the invention," we must point out that the language of the sixth paragraph of § 112 is unequivocal in mandating that the means plus function "shall be construed to

cover the corresponding structure, materials or acts described in the specification and equivalents thereof."[3]

Comparing the recess and pin arrangement disclosed by the appellant to the arrangement proposed by the examiner (wherein the support wheel is simply spring biased), it is readily apparent to us that there is no reason for concluding that appellant's structure (wherein the support wheel is adjusted to **fixed** positions defined by recesses in the cylindrical pivot sleeve or its equivalent structure) would have been obvious in view of a support wheel which is free to move up a down against the bias of a spring as the examiner has proposed. Thus, the combined teachings of Jarl and the Swiss patent provide no basis for modifying Jarl's forklift truck to arrive at the appellant's structure or its equivalent.

We have carefully reviewed the references to Overmyer and the British patent but find nothing therein which would overcome the deficiencies already noted with respect to Jarl, Tideman and the Swiss patent.

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[3] It should be noted that the patents involved in both ***Donaldson*** and ***Valmont*** included language which indicated that the structure disclosed in the specification was also "non-limiting." The Schuler patent involved in ***Donaldson*** indicated that the disclosure was "but illustrative" (see U.S. Patent No. 4,395,269, col. 8, lines 29-33) while the Seckler patent involved in ***Valmont*** indicated that the specifically described control means was merely a "preferred embodiment" (see U.S. Patent No. 3,802,627, col. 5, line 64 through col. 6, line 5).

The decision of the examiner is reversed.

REVERSED

JAMES M. MEISTER)
Administrative Patent Judge)
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NEAL E. ABRAMS) BOARD OF PATENT
Administrative Patent Judge) APPEALS AND
) INTERFERENCES
)
)
JOHN P. McQUADE)
Administrative Patent Judge)

Appeal No. 95-5051
Application 08/035,652

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Translation of Swiss Patent No. 557,525
IPC: 34i, 23/03
Applicant: Ropmeca, S.A.
Inventor: Alvert can de Walle
Application Date: April 3, 1959
Publication Date: November 30, 1961
Priority Date: January 30, 1959 (Belgium)
Original German Title: Dispositif de roulement

ROLLING DEVICE

The object of the present invention is a rolling device comprising a member having means for attaching the device to an object.

The device is characterized in that it carries a movable member in the form of a U between the branches onto which a fork is detachably mounted. The fork supports a small wheel, which is also movable. This fork can oscillate in the movable member against the force of the elastic member. The means on which the fork pivots also allow the small wheel to be accommodated without play by mounting it in place of the afore-mentioned fork in the afore-mentioned movable member.

An example of an embodiment of the device which is the object of the invention is represented in the drawing in which:

Fig. 1 is an elevated view; and

Fig. 2 is a sectional side view of the device.

Known devices comprise a pivot A to be attached to an

object, for example, a piece of furniture, in order to make it movable. A pivoting fork B, mounted between two thrust ball bearings, which are supported at the end of said pivot, supports an axle E around which a small wheel N turns. These devices are rigid, which can be a drawback.

The embodiment represented in the drawing of the device according to the invention is provided with an effective elastic suspension.

This suspension is detachable and essentially comprises a detachable fork C whose branches are provided at each of their free ends with an opening or a groove for attaching the small wheel N. The fork C is additionally provided with a bore which passes through its two branches in order to mount this fork on axle E around which it pivots in relation to fork B, which supports the afore-mentioned axle. The latter also passes through the two side flanges H of a stop M welded to member D or a projection, which is rigidly attached by means of a member I to the fork B by means of a screw J. Consequently, there are three members traversed by the same axle E, i.e., fork C, fork B, and the whole unit formed by member D and by stop M. The two branches of fork C are joined by hub F, made, for example, of bronze. A steel bushing G is guided into the hub and slightly projects over the ends of the latter.

Axle E is mounted on the inside of the bushing of the hub. Axle E is mounted on the inside of the bushing in such a way that after blocking the nuts that are screwed to the end of this axle,

fork C can turn freely with respect to fork B.

At the opposite end from that carrying the small wheel N, fork C is provided with a wall L, which joins its two branches and is approximately parallel to member D. A block K made of elastic material, for example, rubber, is inserted in the space between this member D and the wall L and constitutes the elastic element of the suspension. If the fork is forced in the direction of the arrow P, for example, due to the effect of an irregularity in the ground or to an increase in the load exerted on the object carrying the device, block K is crushed, contrary to the elastic force it offers naturally and which allows it to absorb any shock transmitted to the object and any shocks that may occur during the rolling movement.

In order to keep block K under a defined (minimum) pressure, member I is provided with a stop R [not shown] in order to support the upper edge of the wall L.

The limits of the elastic force of the suspension can be varied to a certain extent by modifying the shape, the volume, and the nature of block K. If the elastic suspension is not required, fork C may be removed and the small wheel W can be rotatably attached to fork B instead, such that the device obtained behaves like prior art devices.

Claim

A rolling device comprising a member having means that allow it to be attached to an object, characterized in that it carries a movable member in the form of a U between the branches of which a fork is detachably mounted and it supports a small wheel which is also detachable, with the fork being able to oscillate in the movable member against the force of the elastic member, and with the means on which the fork pivots also allowing the small wheel to be accommodated without play by mounting it in place of said fork in said movable member.

Dependent Claims

1. Device according to the main claim, characterized in that said elastic member consists of a block of elastic material.

2. Device according to the main claim and dependent claim 1, characterized in that the elastic member consists of a block of rubber.

3. Device according to the main claim and dependent claim 1, characterized in that said U-shaped member is provided with a movable detachable member (D) forming a projection opposite of which a wall (L) is arranged which is supported by aforesaid fork, with the space between the fork and said movable member

being filled at least in part by aforesaid block of elastic material.

US PATENT & TRADEMARK OFFICE
Translation Branch
August 25, 1995

Martha Witebsky

CONFÉDÉRATION SUISSE

BUREAU FÉDÉRAL DE LA PROPRIÉTÉ INTELLECTUELLE

Classification : 34 i, 23/03

Demande déposée : 3 avril 1959, 17 h.

Priorité : Belgique, 30 janvier 1959

Brevet enregistré : 15 octobre 1961

Exposé d'invention publié : 30 novembre 1961

BREVET PRINCIPAL

Romeca S. A., Deinze (Belgique)

Dispositif de roulement

Albert van de Walle, Deinze (Belgique), est mentionné comme étant l'inventeur

La présente invention a pour objet un dispositif de roulement, comprenant un organe présentant des moyens permettant de le fixer à un objet.

Ce dispositif est caractérisé par le fait qu'il porte une pièce mobile en forme de U entre les branches de laquelle est montée amoviblement une chape, porteuse d'une roulette également amovible, cette chape étant susceptible d'osciller dans la pièce mobile contre l'action d'un organe élastique, les moyens sur lesquels pivotent la chape permettant également de recevoir sans jeu ladite roulette susceptible d'être montée en remplacement de ladite chape dans ladite pièce mobile.

Le dessin annexé montre, à titre d'exemple, une forme d'exécution du dispositif objet de l'invention.

La fig. 1 en est une vue en élévation, et

la fig. 2 montre le dispositif de profil avec coupe partielle.

Dans des dispositifs connus ceux-ci comprennent un pivot A destiné à être fixé à un objet, par exemple un meuble, en vue de lui conférer un caractère mobile. Une chape pivotante B, montée entre deux butées à billes maintenues à l'extrémité dudit pivot, porte un axe E autour duquel tourne une roulette N. Ces dispositifs sont rigides, ce qui peut présenter des inconvénients.

La forme d'exécution représentée au dessin du dispositif selon l'invention est pourvue d'une suspension élastique efficace.

Cette suspension, de caractère amovible, se compose essentiellement d'une chape démontable C dont les branches présentent chacune, à leur extrémité libre, une ouverture ou une encoche pour la fixation de la roulette N. La chape C présente en outre un alésage traversant ses deux branches pour le montage de ladite chape sur l'axe E autour duquel elle pivote par rapport à la chape B qui supporte le susdit axe. Ce dernier traverse également les deux oreilles latérales H d'un cavalier M soudé à une pièce D ou talon, laquelle est fixée rigidement par une partie I, sur la chape B au moyen d'une vis J. Il y a ainsi trois pièces traversées par le même axe E, c'est-à-dire la chape C, la chape B et l'ensemble formé de la pièce D et du cavalier M. Les deux branches de la chape C sont réunies par un moyeu F, par exemple en bronze, dans lequel est guidée une douille G en acier dépassant légèrement les extrémités dudit moyeu.

L'axe E est monté à l'intérieur de la douille dudit moyeu. L'axe E est monté à l'intérieur de la douille G de telle sorte qu'après le blocage des écrous vissés en bout dudit axe, la chape C puisse tourner librement par rapport à la chape B.

Ladite chape C comporte, à son extrémité opposée à celle portant la roulette N, une paroi L réunissant ses deux branches et sensiblement parallèle à la pièce D. Dans l'espace compris entre cette dernière et ladite paroi L est inséré un bloc K de matière élastique, par exemple du caoutchouc, qui constitue l'élément élastique de la suspension. Lorsque la chape C est sollicitée dans le sens de la flèche P, par exemple sous l'action d'une irrégularité du sol ou d'une augmentation de charge exercée sur l'objet portant le dispositif, il se produit un écrasement du bloc K, à l'encontre de l'action élastique qu'il offre naturellement et qui permet d'amortir la transmission à l'objet de tous les chocs susceptibles de se produire lors du roulement.

En vue de maintenir le bloc K sous une pression déterminée (minimum), la partie I présente une butée R contre laquelle est destiné à prendre appui le bord supérieur de la paroi L.

On peut faire varier dans une certaine mesure les limites de l'action élastique de la suspension en

peut être fixée rotativement en lieu et place de cette chape sur la chape B en sorte que le dispositif obtenu se comporte tel que les dispositifs connus.

REVENDICATION

Dispositif de roulement comprenant un organe présentant des moyens permettant de le fixer à un objet, caractérisé par le fait qu'il porte une pièce mobile en forme de U entre les branches de laquelle est montée amoviblement une chape, porteuse d'une roulette également amovible, cette chape étant susceptible d'osciller dans la pièce mobile contre l'action d'un organe élastique, les moyens sur lesquels pivote la chape permettant également de recevoir sans jeu ladite roulette susceptible d'être montée en remplacement de ladite chape dans ladite pièce mobile, par le fait que ledit organe élastique est constitué par un bloc en matière élastique.

2. Dispositif selon la revendication et la sous-revendication 1, caractérisé par le fait que ledit organe élastique est constitué par un bloc de caoutchouc.

3. Dispositif selon la revendication et la sous-revendication 1, caractérisé par le fait que ladite pièce en forme de U est pourvue d'un élément amovible (D) formant talon en regard duquel est disposée une paroi (L) solidaire de la susdite chape, l'espace compris entre cette dernière et ledit élément étant rempli au moins partiellement par ledit bloc de matière élastique.

Romeca S. A.
Mandataire : Walter F. Moser, Genève

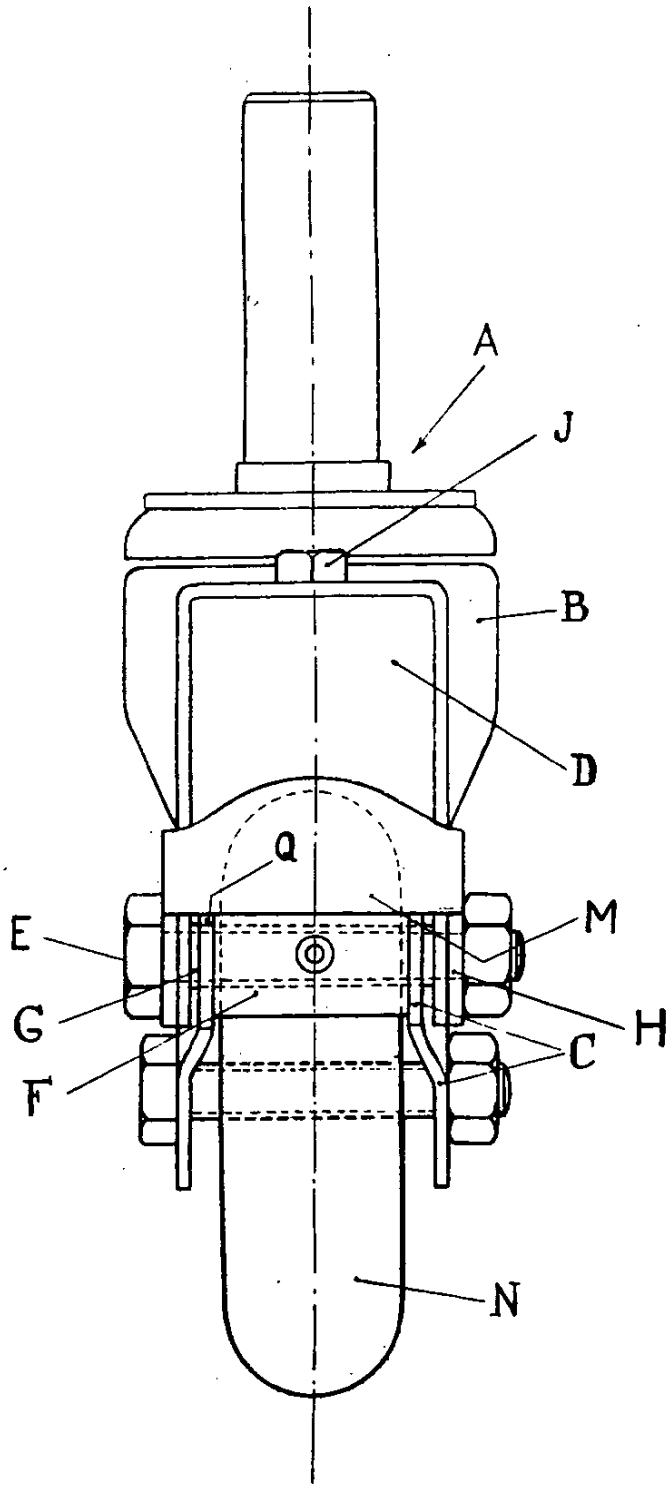

fig.1

1701 11

fig. 2